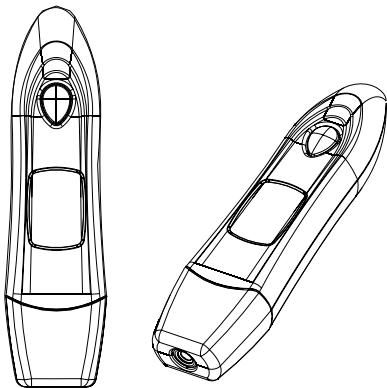




RT-1116



## Ear and Forehead Thermometer Owner's Manual

311-1116100-009

Version 3.0 April, 2009

## **IMPORTANT SAFETY INSTRUCTIONS**

### **READ THIS BEFORE USING**

**The following basic safety precautions should always be taken.**

1. Close supervision is necessary when the device is used by, on, or near children, handicapped persons or invalids.
2. Use the device only for the intended use described in this manual.
3. Do not use the device if it is not working properly, or if it has suffered any damage.

### **KEEP THESE INSTRUCTIONS**

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## CAUTIONS & WARNINGS

- ▶ As with any thermometer, proper technique is crucial to getting accurate temperature readings. **Please read this manual thoroughly and carefully before using.**
- ▶ Always store the thermometer in a cool and dry place: temperatures between  $-25^{\circ}\text{C}$ ( $-13^{\circ}\text{F}$ ) and  $55^{\circ}\text{C}$ ( $131^{\circ}\text{F}$ ); relative humidity less than 95%. **Avoid direct sunlight.**
- ▶ **Avoid dropping** the thermometer.
- ▶ **Do not** touch the lens.
- ▶ **Do not** disassemble the thermometer.
- ▶ Basic safety precautions should always be observed, especially when the thermometer is used on or near children and disabled persons.
- ▶ This thermometer is not intended to substitute for consultation with your physician.
- ▶ The forehead temperature serves as a **reference only. It cannot be a judgment on fever.**

## RESTRICTIONS OF USE

This thermometer is clinically proven to produce accurate temperature measurements; however, please be advised of the following situations:

- ▶ The accuracy cannot be ensured for a person who has deformity in the ear such that the thermometer probe cannot be properly inserted into the ear canal.
- ▶ The accuracy cannot be ensured when blood or drainage is found in the ear canal.
- ▶ If ear drops or medications have been placed in one ear take temperature from the other ear.
- ▶ If wear ear plug or hearing aid, remove the thermometer and wait for 15 minutes before taking temperature.

### NOTE

Never try to clean inside the ears. You may accidentally damage the eardrum or its surrounding tissues. Remove excess ear wax only when you can reach it with a clean cloth. Consult a physician if you suspect the presence of excess earwax.

# **INTRODUCTION**

Thank you for choosing nu-beca RT-1116 & Forehead

Thermometer.

This innovative medical device leverages on advanced infrared (IR) technology to measure temperature instantly and accurately in two convenient ways: in the ear or on the forehead. An additional function is while resting on a table, an elegant clock displaying room temperature will be presented. nu-beca is an elegantly designed infrared thermometer meant for your family.

## **INTENDED USE**

nu-beca RT-1116 Ear & Forehead Thermometer is intended for the intermittent measurement and monitoring of human body temperature from ear canal or forehead. The device is indicated for use by people of all ages in the home.

## **HOW DOES IT WORK**

The thermometer measures the infrared heat generated by the eardrum and its surrounding tissue, or the forehead skin surface over the temporal artery. The thermometer then converts it into a temperature value shown on LCD.

### **NOTE**

The thermometer does not send out any infrared signal.

## HIGHLIGHTED FEATURES

- ▶ Provide two body temperatures: ear or forehead.
- ▶ Fast and accurate: meet the accuracy requirement specified in ASTM E1965-98 and EN 12470-5.
- ▶ Non-contact measurement that does not require lens filter, there by saving cost of replacement.
- ▶ Clock and room temperature inter-display.
- ▶ A waterproof probe that can be wiped using a clean cloth slightly damped with alcohol or water.
- ▶ Automatically power down or back to the CLOCK/RT mode if left unused over 30 seconds.
- ▶ Big button improves handling and activation.
- ▶ Memory function allows you to recall previous results up to 10 measurements.

# PACKAGE CONTENTS



nu-beca RT-1116 Ear &  
Forehead Thermometer



DC 3V type CR2032 Lithium  
Battery



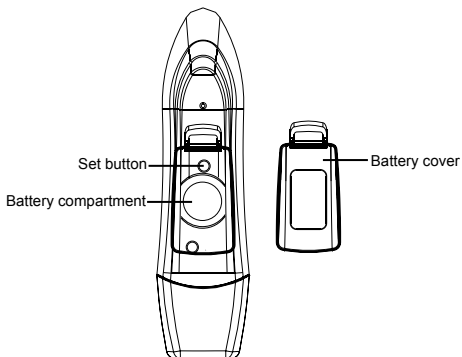
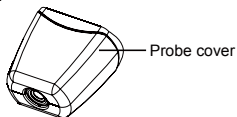
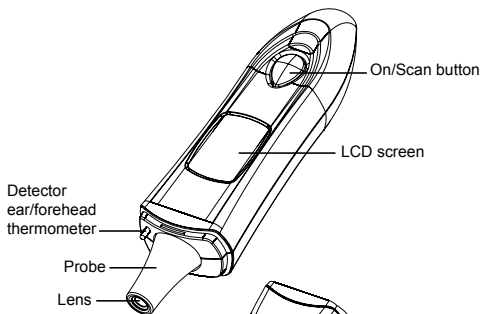
User's Manual



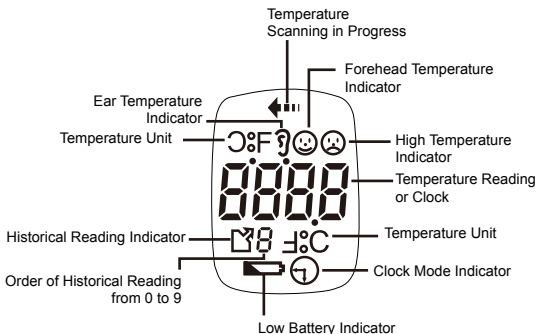
Warranty Card



# THERMOMETER PARTS



# LCD SCREEN



## DISPLAY MODE

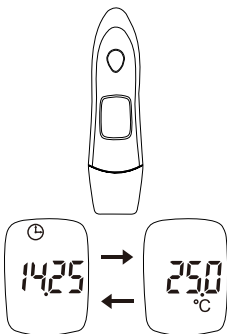
Two modes can be selected.

### 1. OFF mode

The thermometer is off.

### 2. CLOCK/RT mode

This mode allows the thermometer to detect room temperature (RT). It also provides clock.



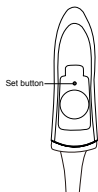
The screen inter-displays clock and room temperature.

# SETTING THE THERMOMETER

You will need to set time and unit for first time use or after replacing the battery.

## Step1 Press the Set button twice.

- ▶ "⌚" and the flashing hour appear on the display.



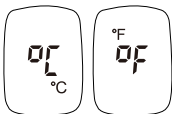
## Step2 Set hour&minute.

- ▶ Press the On/Scan button to select the correct hour.
- ▶ Press the Set button and the flashing minute then appears.
- ▶ Press the On/Scan button to select the correct minute.



## Step3 Select °C or °F.

- ▶ Press the Set button and °C /°F is displayed next.
- ▶ Press the On/Scan button to select.




**Setting is all completed.** Select either of the following two modes to exit setting.

- ▶ OFF mode: Just leave the thermometer without pressing. It will be automatically off after 30 seconds.
- ▶ CLOCK/RT mode: Press the Set button after Step3.

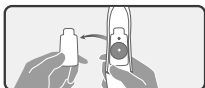
### NOTE

Without pressing any buttons over 30 seconds, the thermometer will automatically turn off.

# REPLACING THE BATTERY

The thermometer comes with one DC 3V type CR2032 lithium battery. Replace it when "  " appears. Please follow the steps to replace a new battery.

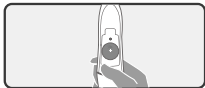
**Step1** Remove the battery cover.



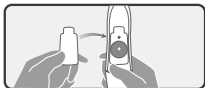
**Step2** Remove the old battery by pressing on the catch (please see the right picture) and lifting up the battery.




**Step3** Place the new battery (with the "+" sign facing upwards) in the battery compartment and press it in until the battery is firmly secured.



**Step4** Reattach the battery cover.



## NOTE

- ▶ Although the thermometer works when "  " appears, we still recommend that you change the battery to obtain an accurate result.
- ▶ Remove the battery if stored for a long period of time.
- ▶ The battery should be kept away out of child's reach. If they are swallowed, promptly see a doctor for help.

## ABOUT NORMAL BODY TEMPERATURE & FEVER

Body temperature can vary from one person to next. It also varies by location on the body and time of day. Below<sup>1</sup> shows the statistical normal ranges from different sites. Please keep in mind that temperatures measured from different sites, even at the same time, should not be directly compared.

Fever indicates that the body temperature is higher than normal. This symptom may be caused by infection, overdressing or immunization. Some people may not experience fever even when they are ill. These include, but are not limited to, infants younger than 3 months old, persons with compromised immune systems, persons taking antibiotics, steroids or antipyretics (aspirin, ibuprofen, acetaminophen), or persons with certain chronic illnesses. **Please consult your physician when you feel ill even if you do not have a fever.**

1.

Body Site	Normal Temperature Range
Oral	35.5°C - 37.5°C (95.9°F - 99.5°F)
Auxiliary(underarm)	34.7°C - 37.3°C (94.5°F - 99.1°F)
Rectal	36.6°C - 38.0°C (97.9°F - 100.4°F)
Ear	35.8°C - 38.0°C (96.4°F - 100.4°F)

1. Chamberlain, J. M. Terndrup, T. E., New Light on Thermometer Readings, Contemporary Pediatrics, March 1994.

# USING THE DEVICE

## © AS AN EAR THERMOMETER

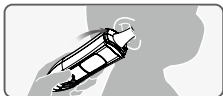
**Remove the probe cover first.** The thermometer is now served as an ear thermometer.



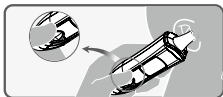
**Step1** Press and release the On/Scan button. When ready, the thermometer beeps and displays the last measurement.



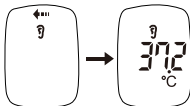
**Step2** Gently fit the probe into the ear canal.



**Step3** Press and release the On/Scan button. Remove until the thermometer beeps.



**Step4** Read the result.  
" 37.2 " is shown together with a temperature value.



### NOTE

- The thermometer does not require any costly lens filters.
- The thermometer will automatically return to its initial mode (OFF or CLOCK/RT) if left without use over 30 seconds.

## Hints on Taking Ear Temperature

1. As with any type of thermometer, you may observe slight variations in consecutive measurements. **It is recommended that you take 3 temperature readings and use the highest one for the following situations:**

- ▶ Infants younger than 3 months old.
- ▶ Children younger than 3 years old and have a compromised immune system and the presence/absence of fever is critical.
- ▶ When you are learning to use the thermometer.

2. Please free from the following situations at least for 15 minutes before taking a reading.

- ▶ When you have your ear covered.
- ▶ After exercising, swimming, or taking a bath. When expose to extreme temperature.
- ▶ During eating and talking.

3. To take accurate readings, the ear must be free from excess earwax buildup.

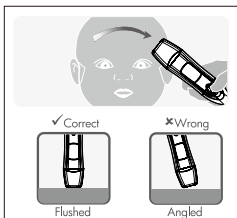
## ◎ AS A FOREHEAD THERMOMETER

**Make sure the probe cover is capped.** The thermometer is now served as a forehead thermometer.

**Step1** Press and release the On/Scan button. When ready, the thermometer beeps and displays the last measurement.



**Step2** Press and hold the On/Scan button. Put the probe on the temple. Make sure the probe is flat on the temple, not at an angle.



**Step3** Release the button and read the result. "😊" is shown together with a temperature value.



### NOTE

- ▶ As the forehead temperature is likely to be affected by sweat, oil and the surroundings, the reading shall be taken as a **reference only**.
- ▶ If the probe is placed at an angle on the forehead, the reading will be affected by surrounding temperature.
- ▶ You can scan at 3 cm distance from the forehead.



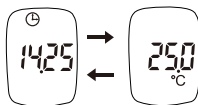
## ◎ AS A CLOCK AND ROOM THERMOMETER

The thermometer can be served as a clock and can detect room temperature if it is in the CLOCK/RT mode. Make sure the probe cover is capped before starting.

**Step1** Press the Set button until all segments are displayed like right. The thermometer is now in **the CLOCK/RT mode**.



**Step2** Place on the table as clock and RT thermometer. The screen inter-displays between clock and room temperature.



## **TURNING OFF THE DEVICE**

After measurements, the thermometer will back to its initial mode after unused over 30 seconds. That is, if the thermometer is started from the OFF mode, it will be automatically off after measurements. Likewise, if the thermometer is started from the CLOCK/RT mode, it will be back to that mode after measurements.

To exit the CLOCK/RT mode, you have to turn off the thermometer.

To turn the thermometer off, press the Set button until the hour or minute is blinking. Leave for 30 seconds without pressing any button. The thermometer will then automatically off.

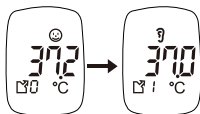
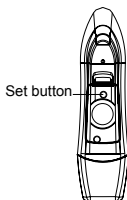
## RECALLING THE MEMORY

Your thermometer stores 10 recent readings in the memory. Be sure the thermometer is in either "OFF" or "CLOCK/RT" mode before recall.

**Step1** Press the Set button to enter the memory.

**Step2** Press the On/Scan button to review the result.

Each time you press the On/Scan button, a result will be displayed in the order of dates (latest result shown first), together with "📅" and number (from 0 to 9).

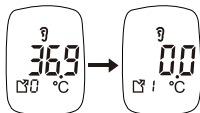


When the memory is full, the oldest result is deleted as the new one added.

**Step3** Press the Set button to exit the memory.

### NOTE


When using the thermometer at first time, the first memory result will display 36.9°C(98.4°F) and others will display zero. It indicates that there are no test results in memory.



## CARE & CLEANING










- ▶ Keep the probe clean, as build-up of earwax and grease may affect the measurement.
- ▶ The probe is waterproof. Please wipe with a clean dry cloth or dampened with 70% alcohol.
- ▶ The body of the thermometer is not water-resistant. Please never put the thermometer under a running tap or submerge it into water. Use a soft and dry cloth to clean it. Do not use abrasive cleaners.
- ▶ Store the thermometer in a cool and dry location. Free from dust and away from direct sunlight.

# RESULT INDICATOR

Message	What it means
	When the measurement is equal or over 38.0°C(100.4°F), 🤒 is shown together with the result.

# TROUBLESHOOTING

The table below shows problems you may encounter. Please follow "what to do" to resolve problems. If the problem still exists, please call your local dealer for help.

Message	Situation	Solution
	Room temperature is below 10°C.	Put the thermometer under operating temperature range of 10°C to 40°C(50°F to 104°F).
	Room temperature is above 40°C.	Put the thermometer under operating temperature range of 10°C to 40°C(50°F to 104°F).
	Problem with the thermometer.	Please put the thermometer under operating temperature range of 10°C to 40°C(50°F to 104°F). If the problem is unsolved, please contact the customer service line.
	Battery is low, but the thermometer will still operate correctly.	<b>May continue to use the thermometer, but should change a new battery as soon as possible.</b>
	Battery is too low to measure temperature correctly. No measurements will be taken.	<b>Replace batteries</b> immediately.
   	<p>Measured temperature falls outside the displayed <b>temperature range of 0.0°C to 50.0°C(32.0°F to 122.0°F)</b></p> <p>Hi- temperature is above 50.0 °C</p> <p>Lo- temperature is below 0.0 °C</p>	Follow the sections on <b>"Use the device "</b> to take body temperature.

# SPECIFICATIONS

Model no.	RT-1116
Dimensions	120mm (L) x 15mm (W) x 25mm (H)
Weight	45.87g
Displayed temperature range	0°C to 50°C (32°F to 122°F)
Display resolution	0.1°C/0.1°F
Accuracy	Meet the accuracy requirement specified in ASTM E1965-98 ▶ ±0.2°C (±0.4°F) for the range of 36.0°C to 39.0°C (96.8°F to 102.2°F)  ▶ ±0.3°C (±0.5°F) from 34.0°C to 35.9°C (93.2°F to 96.6°F) and from 39.1°C to 42.2°C (102.4°F to 108.0°F)
Temperature unit	°C or °F
Operating temperature range	10°C to 40°C (50°F to 104°F)
Operating humidity	95% RH or less
Storage temperature range	-25°C to 55°C (-13°F to 131°F)
Storage humidity	95% RH or less
Memory capacity	10 measurements

The specification may be changed without prior notice.

# Warranty

- ▲ nu-beca warrants this product to be free of defects in workmanship and materials for a period on **ONE year** from the date of purchase.
- ▲ During the warranty period, if this product is found to be defective, you may bring it together with the purchase receipt and Warranty Certificate on a carry-in basis to nu-beca's office during normal business hours for warranty service. We will then repair or replace defective parts or exchange the whole product as we select, at no charge to the original owner. After such repair, replacement or exchange, the product will be warranted from the date of purchase.
- ▲ This warranty is valid only if the Warranty Certificate and Warranty Registration Card are duly complete with date of purchase, serial number and dealer's stamp, and if the Warranty Registration Card is sent to local distributor office not later than 14 days from the date of purchase.
- ▲ This warranty is void if this product has been repaired or serviced by unauthorized person. This warranty does not cover defects caused by misuse, abuse, accident, tampering, poor maintenance, fire or any other acts beyond human control.
- ▲ Except as stated in the above paragraphs, nu-beca disclaims all other warranties, implied or expressed, including the warranties of merchantability of fitness for a particular purpose with respect to the use of this product. nu-beca shall not be liable for any direct, consequential or incidental damages arising out of the use or inability to use product.